

REMARKS/ARGUMENTS

Claims 1 and 2 stand rejected under 35 U.S.C. § 112 as failing to comply with the written description requirement. Claims 1 and 2 have been amended to remove the term “directly” and insert the language “without passing through another pump” which is consistent with the disclosure and which distinguishes over the rejection of record for the reasons set forth below.

Claims 1 and 2 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hayes in view of Flemming and further in view of Loeser and Cline. It is respectfully submitted that claim 1 as amended patentably distinguishes over the rejection of record. It is further submitted that the need to combine four references to provide the claimed (before amendment) limitations presents a prima facie case of unobviousness.

Hayes discloses a system for dispensing material to be diluted, typically by water (col. 1, lines 17-26). Such materials are not considered plural component materials as would normally be understood by one of ordinary skill in the art. As commonly understood, plural component materials have 2 or more components that chemically react with one another. Dilution is not a chemical reaction. Further rather than as claimed, Hayes connects the outlet 39 of the concentrate pump 41 to the inlet 29 of the other pump 23. Thus there is more than one pump between the concentrate and the work station, which in turn is not disclosed as an application device such as a spray gun.

Flemming discloses a dispensing system having multiple pumps for alternatively dispensing various colored materials (col. 5, lines 46-54). Only one color is dispensed at a time and the others are recirculated back to the reservoirs. Because this is metered dispensing using a stepper

motor, there is no pressure control nor any need for such. Colorant dispensing is typically a low pressure operation.

Loeser shows a simultaneous metering system but uses multiple pumps (5, 6, 7 and 8) for each fluid. Metering pumps 7 and 8 have slippage (col. 2, lines 34-39) which require the second pumps and are like gear pumps similar to those shown in the references other than Flemming.

Cline shows a complicated system but does not show one which monitors the higher of the two pressures (Cline compares one or both pressures to a setpoint but does not mention comparing the higher of the two) and which compares it to a single set point as claimed.

Overall, while there might arguably be a reason to combine any two references, there is no reason one skilled in the art might combine all four references applied in the Office Action. The only suggestion to do so comes from Applicants' disclosure. The use of positive displacement reciprocating piston pumps as claimed allows the system to stall against pressure and not have to worry about pressure bleeding off through gear pumps through slippage as discussed in Loeser.

In contrast, the claimed invention dispenses two materials simultaneously at elevated pressures and compares the pressures of the two streams to a setpoint (or to a predetermined deviation from a setpoint as set forth in claim 2). One skilled in the art needs some reason to combine the four references and there is no reason mentioned why one would do so other than Applicants' disclosure. Other than broadly addressing some sort of fluid dispensing, there are essentially no common problems addressed by the disparate art and no reason why one would combine them.

Applicants have produced an electric plural component proportioner for the mixing of fast setting materials which require precise control of both ratio and pressure using many commonly

Appl.No. 10/533,329
Amdt.dated February 5, 2009
Reply to Office action of November 6, 2008

available parts traditionally produced in volume for use in airless paint sprayers resulting in a unit which is relatively inexpensive and yet which performs at a level above its price point. The assignee of the instant invention has sold over \$40 million of proportioners constructed according to the claimed invention, clear evidence of commercial success and lack of obviousness.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

/dbf/

Douglas B. Farrow
Registration No. 28582
Graco Inc.
PO Box 1441
Minneapolis, MN 55440
(612) 623-6769
pto@graco.com